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VARIATION OF LIPIDS INDEXES IN POLLEN WITH ITS BOTANICAL ORIGIN

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Congress Abstract | Full Text (/products/ejournals/html/10.1055/s-0037-1608202)

Bee pollen is one of nature's healthful food products with promising nutritional and therapeutic properties due to its chemical composition, particularly its protein content, which includes almost all the essential amino acids. Nevertheless the composition in lipids it is not completely known and supposedly will be highly variable depending on the floral origin. As such, this parameter must be ascertained in line with the research for bioactivity [1].

The aim of this work was to evaluate some health-related lipid indexes of bee pollen, namely omega-6/omega-3 fatty acid ratio (n-6/n-3); polyunsaturated fatty acid/saturated fatty acid ratio (PUFA/SAT), atherogenic index (AI) and thrombogenic index (TI) in samples harvested in Portugal. The selected parameters were calculated from the Fatty-Acid Profile, which was determined as previously reported by Bárbara et al. [3].

Bee pollen samples, after harvest, were cleaned and frozen at -20 ^{o}C and were codified according the predominant pollen. Figure 1 associates the lipid indexes of the different samples with their botanical origins.

n-6/n-3 and PUFA/SAT ratios were in within the limits recommended by World Health Organization (below 4.0 and above 0.45, respectively), suggesting that bee pollen is a good product with the nutritional point of view, with potential beneficial effects for the consumer's health. Also, both AI and TI indexes of this natural product were low, even though this effect depended on bee pollen's botanical origin (Figure 1).

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